Amendments To the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   Claim 1 (currently amended): A switching network including rows and columns of
2   switches comprising:
3   a)   a first stage of switches defining a first column of said switching
4   network having input lines and output lines and comprising m (n x k)
5   input switches, wherein m is an integer number, n is an integer
6   number representing the number of input lines and k is an integer
7   number representing the number of output lines;
8   b)   a second stage of switches defining a second column of said switching
9   network comprising of m (k' x k') middle switches, k' is an integer
10   number representing the number of inputs and outputs; and
11   c)   a third stage of switches defining a third column of said switching
12   network comprising of m (k x n) switches[,]; and
13   d)   a plurality of modules, each module defining a row of the switching
14   network and including one input switch of the first stage of switches,
15   one middle switch of the second stage of switches, one output switch
16   of the third stage of switches,
17   wherein the modules of the plurality of modules are identical and k' is selected
18   such that m*Q(k'/m) ≥ k (where Q(x/y) denotes the quotient of dividing x by y)
19   to allow using m switches in the second stage.

1   Claim 2 (previously presented): A switching network comprising:
2   m identical modules, said module further comprising
3   a)   an input stage comprising of a (n x k) switch wherein n is an
4   integer number representing the number of input lines and k is
5   an integer number representing the number of output lines;
6   b)   a middle stage comprising of a (k' x k') switch, k' is an integer
7   number representing the number of inputs and outputs; and
8   c)   an output stage comprising of a (k x n) switch

9   wherein k, k', and m satisfy m*Q(k'/m) ≥ k.

1   Claim 3 (currently amended): A method of constructing a switching network comprising:

2   a)   using m identical modules, each module including switches, each switch

3   having input lines and output lines;

4   b)   constructing said module from an input stage comprising of a (n x k)

5   switch, a middle stage comprising of a (k' x k') switch, an output stage

6   comprising of a (k x n) switch wherein n is an integer number

7   representing the number of input lines and k is an integer number

8   representing the number of output lines and k' is an integer number

9   representing the number of inputs and outputs; and

10   c)   selecting k' such that m*Q(k'/m) ≥ k.

1   Claim 4 (currently amended): A module comprising:

2   a)   an input stage comprising of a (n x k) switch wherein n is an integer

3   number representing the number of input lines and k is an integer

4   number representing the number of output lines;

5   b)   a middle stage comprising of a (k' x k') switch, k' is an integer

6   number representing the number of inputs and outputs;

7   c)   an output stage comprising of a (k x n) switch; and

8   wherein a switching network can be constructed using m of said modules, where

9   k, k', and m satisfy m*Q(k'/m) ≥ k.

1   Claim 5 (currently amended): A method of constructing a v(k, n, m) switching network

2   for values of m belonging to a non-empty set _M_ comprising:

3   a)   using m identical modules, each module including switches, each switch having

4   input lines and output lines;

5   b)   constructing said module from an input stage comprising of a (n x k) switch, a

6   middle stage comprising of a (k' x k') switch, an output stage comprising of a (k

7   x n) switch, wherein n is an integer number representing the number of input

8   lines and k is an integer number representing the number of output lines and k' is

9   an integer number representing the number of inputs and outputs; and

10   c)   selecting k' such that m*Q(k'/m) ≥ k for all values of m belonging to set _M_